



A JOHNSON CONTROLS COMPANY

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TECHNICAL SERVICE

DATE May 12, 2008

YS-019-08

TO: All York Branch Service Managers
All York Distributor Service Managers
All Field Service Supervisors

SUBJECT: Nuisance rollout trips on 3 thru 6 ton Sunline units.

UNITS: D7CG, D8CG, DM***N (S), DH***N (S), DJ***N (S), ZH***N (S),
Prior to SN: N0B8*****

Over this past heating season, we had experienced an increase in field reports of nuisance rollout switch trips in small Sunline units with the gas heat option. As a result of these complaints, engineering was requested to review the furnace operation on these models.

This review included evaluation of the furnace operation as received from stock, then after the furnace was adjusted as per the installation and operation manual. During this evaluation, temperatures were monitored at the face of the rollout switch. Regardless of furnace input, in the cases where the pilot adjustment was found to be excessive, the temperatures at the face of the rollout would be elevated. In the two cell heat option, the temperature would elevate to a level close enough to the rollout switch's trip point that it would result in a switch trip after only a short run period. When the pilot level was adjusted to the recommended level and the manifold pressure was adjusted to provide the rated input of the specific furnace option, the temperature at the limit would be lowered well below the switch setting allowing for continuous uninterrupted furnace operation.

During this evaluation, engineering discovered that the two cell heat option was more sensitive to an improperly adjusted pilot. Even though the pilot could be adjusted to provide reliable furnace operation, small increases in the inlet pressure would elevate the temperature at the face of the rollout switch much faster than on other furnaces options. Based on this evaluation, engineering decided to increase the rollout switch setting for the two cell heat option from 225 degrees F. to 290 degrees F, making the unit design less sensitive to problems that may arise from gas line pressure fluctuations or variations in the caloric value of the gas supply.

This testing re-established the importance of performing the published startup procedures of which the pilot adjustment could be considered most critical. This is true for all units, regardless of the furnaces size. Since on these models, the pilot adjustment is a restrictive type adjustment, not regulated, the pilot level is directly related to the inlet gas pressure supplied to the unit and must be adjusted after gas service to the unit has been established.

In the majority of cases, proper adjustment of the furnace will prevent a problem with nuisance trips regardless of the furnace input. On Sunline units with the 2 cell heat option produced before February of 2008, (N0B8*****) that continue to experience nuisance trips after recommended adjustments have been made to the pilot level, manifold pressure and furnace temperature rise, the roll-out switch should be changed to the new 290 degree F. switch (S1-02541313000 / SAP 346183). This switch is now available through Source1 parts.

Since this is primarily a set up issue, there is no labor associated with this letter. The 290° switch will be covered under the unit standard warranty, or for a period of 2 years from date of this letter whichever is longer. Fill out a standard warranty claim form and reference this letter if the unit is outside the standard unit warranty and covered by this letter.

We apologize for any inconvenience this may have caused.

Frank Matlock

Frank Matlock
Field Service Supervisor

Hank Edmunds

Hank Edmunds
Engineering Manager II